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NUCLEIC ACID MOLECULES ENCODING THESE HUMAN RAS-LIKE
PROTEINS, AND USES THEREOF

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Leu	Phe	Ser	Ile	Leu	Glu	Glu	Leu	Ala	Met	Val	Thr	Ser	Leu	Arg	Pro
			340					345					350		
Pro	Val	Gln	Ala	Asn	Pro	Asp	Leu	Leu	Ser	Leu	Leu	Thr	Val	Ser	Leu
		355					360					365			
Asp	Gln	Tyr	Gln	Thr	Glu	Asp	Glu	Leu	Tyr	Gln	Leu	Ser	Leu	Gln	Arg
	370					375					380				
Glu	Pro	Arg	Ser	Lys	Ser	Ser	Pro	Thr	Ser	Pro	Thr	Ser	Cys	Thr	Pro
385					390					395					400
Pro	Pro	Arg	Pro	Pro	Val	Leu	Glu	Glu	Trp	Thr	Ser	Ala	Ala	Lys	Pro
				405					410					415	
Lys	Leu	Asp	Gln	Ala	Leu	Val	Val	Glu	His	Ile	Glu	Lys	Met	Val	Glu
			420					425					430		
Ser	Val	Phe	Arg	Asn	Phe	Asp	Val	Asp	Gly	Asp	Gly	His	Ile	Ser	Gln
	435						440					445			
Glu	Glu	Phe	Gln	Ile	Ile	Arg	Gly	Asn	Phe	Pro	Tyr	Leu	Ser	Ala	Phe
	450					455					460				
Gly	Asp	Leu	Asp	Gln	Asn	Gln	Asp	Gly	Cys	Ile	Ser	Arg	Glu	Glu	Met
465					470					475					480

Val Ser Tyr Phe Leu Arg Ser Ser Ser Val Leu Gly Gly Arg Met Gly
 485 490 495
 Phe Val His Asn Phe Gln Glu Ser Asn Ser Leu Arg Pro Val Ala Cys
 500 505 510
 Arg His Cys Lys Ala Leu Ile Leu Gly Ile Tyr Lys Gln Gly Leu Lys
 515 520 525
 Cys Arg Ala Cys Gly Val Asn Cys His Lys Gln Cys Lys Asp Arg Leu
 530 535 540
 Ser Val Glu Cys Arg Arg Arg Ala Gln Ser Val Ser Leu Glu Gly Ser
 545 550 555 560
 Ala Pro Ser Pro Ser Pro Met His Ser His His Arg Ala Phe Ser
 565 570 575
 Phe Ser Leu Pro Arg Pro Gly Arg Arg Gly Ser Arg Pro Pro Glu Ile
 580 585 590
 Arg Glu Glu Glu Val Gln Thr Val Glu Asp Gly Val Phe Asp Ile His
 595 600 605
 Leu

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 <212> PRT
 <213> Human

<400> 5
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 Glu Ala Thr Ser Ser Ala Gly Leu His Ser Gly Val Asp Glu Leu Gly
 20 25 30
 Val Arg Ser Glu Pro Gly Gly Arg Leu Pro Glu Arg Ser Leu Gly Pro
 35 40 45
 Ala His Pro Ala Pro Ala Ala Met Ala Gly Thr Leu Asp Leu Asp Lys
 50 55 60
 Gly Cys Thr Val Glu Glu Leu Leu Arg Gly Cys Ile Glu Ala Phe Asp
 65 70 75 80
 Asp Ser Gly Lys Val Arg Asp Pro Gln Leu Val Arg Met Phe Leu Met
 85 90 95
 Met His Pro Trp Tyr Ile Pro Ser Ser Gln Leu Ala Ala Lys Leu Leu
 100 105 110
 His Ile Tyr Gln Gln Ser Arg Lys Asp Asn Ser Asn Ser Leu Gln Val
 115 120 125
 Lys Thr Cys His Leu Val Arg Tyr Trp Ile Ser Ala Phe Pro Ala Glu
 130 135 140
 Phe Asp Leu Asn Pro Glu Leu Ala Glu Gln Ile Lys Glu Leu Lys Ala
 145 150 155 160
 Leu Leu Asp Gln Glu Gly Asn Arg Arg His Ser Ser Leu Ile Asp Ile
 165 170 175
 Asp Ser Val Pro Thr Tyr Lys Trp Lys Arg Gln Val Thr Gln Arg Asn
 180 185 190
 Pro Val Gly Gln Lys Lys Arg Lys Met Ser Leu Leu Phe Asp His Leu
 195 200 205
 Glu Pro Met Glu Leu Ala Glu His Leu Thr Tyr Leu Glu Tyr Arg Ser
 210 215 220
 Phe Cys Lys Ile Leu Phe Gln Asp Tyr His Ser Phe Val Thr His Gly
 225 230 235 240
 Cys Thr Val Asp Asn Pro Val Leu Glu Arg Phe Ile Ser Leu Phe Asn

				245				250					255				
Ser	Val	Ser	Gln	Trp	Val	Gln	Leu	Met	Ile	Leu	Ser	Lys	Pro	Thr	Ala		
			260					265					270				
Pro	Gln	Arg	Ala	Leu	Val	Ile	Thr	His	Phe	Val	His	Val	Ala	Glu	Lys		
		275					280					285					
Leu	Leu	Gln	Leu	Gln	Asn	Phe	Asn	Thr	Leu	Met	Ala	Val	Val	Gly	Gly		
	290				295						300						
Leu	Ser	His	Ser	Ser	Ile	Ser	Arg	Leu	Lys	Glu	Thr	His	Ser	His	Val		
305				310					315						320		
Ser	Pro	Glu	Thr	Ile	Lys	Leu	Trp	Glu	Gly	Leu	Thr	Glu	Leu	Val	Thr		
			325					330						335			
Ala	Thr	Gly	Asn	Tyr	Gly	Asn	Tyr	Arg	Arg	Arg	Leu	Ala	Ala	Cys	Val		
		340					345						350				
Gly	Phe	Arg	Phe	Pro	Ile	Leu	Gly	Val	His	Leu	Lys	Asp	Leu	Val	Ala		
	355					360						365					
Leu	Gln	Leu	Ala	Leu	Pro	Asp	Trp	Leu	Asp	Pro	Ala	Arg	Thr	Arg	Leu		
	370					375					380						
Asn	Gly	Ala	Lys	Met	Lys	Gln	Leu	Phe	Ser	Ile	Leu	Glu	Glu	Leu	Ala		
385				390					395						400		
Met	Val	Thr	Ser	Leu	Arg	Pro	Pro	Val	Gln	Ala	Asn	Pro	Asp	Leu	Leu		
			405					410						415			
Ser	Leu	Leu	Thr	Val	Ser	Leu	Asp	Gln	Tyr	Gln	Thr	Glu	Asp	Glu	Leu		
		420					425						430				
Tyr	Gln	Leu	Ser	Leu	Gln	Arg	Glu	Pro	Arg	Ser	Lys	Ser	Ser	Pro	Thr		
	435					440					445						
Ser	Pro	Thr	Ser	Cys	Thr	Pro	Pro	Pro	Arg	Pro	Pro	Val	Leu	Glu	Glu		
	450				455					460							
Trp	Thr	Ser	Ala	Ala	Lys	Pro	Lys	Leu	Asp	Gln	Ala	Leu	Val	Val	Glu		
465				470					475						480		
His	Ile	Glu	Lys	Met	Val	Glu	Ser	Val	Phe	Arg	Asn	Phe	Asp	Val	Asp		
			485					490					495				
Gly	Asp	Gly	His	Ile	Ser	Gln	Glu	Glu	Phe	Gln	Ile	Ile	Arg	Gly	Asn		
		500					505					510					
Phe	Pro	Tyr	Leu	Ser	Ala	Phe	Gly	Asp	Leu	Asp	Gln	Asn	Gln	Asp	Gly		
	515					520					525						
Cys	Ile	Ser	Arg	Glu	Glu	Met	Val	Ser	Tyr	Phe	Leu	Arg	Ser	Ser	Ser		
	530				535					540							
Val	Leu	Gly	Gly	Arg	Met	Gly	Phe	Val	His	Asn	Phe	Gln	Glu	Ser	Asn		
545				550					555						560		
Ser	Leu	Arg	Pro	Val	Ala	Cys	Arg	His	Cys	Lys	Ala	Leu	Ile	Leu	Gly		
			565					570						575			
Ile	Tyr	Lys	Gln	Gly	Leu	Lys	Cys	Arg	Ala	Cys	Gly	Val	Asn	Cys	His		
		580					585						590				
Lys	Gln	Cys	Lys	Asp	Arg	Leu	Ser	Val	Glu	Cys	Arg	Arg	Arg	Ala	Gln		
	595					600					605						
Ser	Val	Ser	Leu	Glu	Gly	Ser	Ala	Pro	Ser	Pro	Ser	Pro	Met	His	Ser		
	610				615					620							
His	His	His	Arg	Ala	Phe	Ser	Phe	Ser	Leu	Pro	Arg	Pro	Gly	Arg	Arg		
625				630					635					640			
Gly	Ser	Arg	Pro	Pro	Glu	Ile	Arg	Glu	Glu	Glu	Val	Gln	Thr	Val	Glu		
			645					650						655			
Asp	Gly	Val	Phe	Asp	Ile	His	Leu										
		660															

<210> 6

<211> 608

<212> PRT

<213> Mus musculus

<400> 6

Met	Ala	Ser	Thr	Leu	Asp	Leu	Asp	Lys	Gly	Cys	Thr	Val	Glu	Glu	Leu
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Leu	Arg	Gly	Cys	Ile	Glu	Ala	Phe	Asp	Asp	Ser	Gly	Lys	Val	Arg	Asp
		20						25					30		
Pro	Gln	Leu	Val	Arg	Met	Phe	Leu	Met	Met	His	Pro	Trp	Tyr	Ile	Pro
		35					40					45			
Ser	Ser	Gln	Leu	Ala	Ser	Lys	Leu	Leu	His	Phe	Tyr	Gln	Gln	Ser	Arg
	50					55					60				
Lys	Asp	Asn	Ser	Asn	Ser	Leu	Gln	Val	Lys	Thr	Cys	His	Leu	Val	Arg
65					70					75					80
Tyr	Trp	Val	Ser	Ala	Phe	Pro	Ala	Glu	Phe	Asp	Leu	Asn	Pro	Glu	Leu
				85					90					95	
Ala	Glu	Pro	Ile	Lys	Glu	Leu	Lys	Ala	Leu	Leu	Asp	Gln	Glu	Gly	Asn
				100				105					110		
Arg	Arg	His	Ser	Ser	Leu	Ile	Asp	Ile	Glu	Ser	Val	Pro	Thr	Tyr	Lys
		115					120					125			
Trp	Lys	Arg	Gln	Val	Thr	Gln	Arg	Asn	Pro	Val	Glu	Gln	Lys	Lys	Arg
	130					135					140				
Lys	Met	Ser	Leu	Leu	Phe	Asp	His	Leu	Glu	Pro	Met	Glu	Leu	Ala	Glu
145					150					155					160
His	Leu	Thr	Tyr	Leu	Glu	Tyr	Arg	Ser	Phe	Cys	Lys	Ile	Leu	Phe	Gln
				165					170					175	
Asp	Tyr	His	Ser	Phe	Val	Thr	His	Gly	Cys	Thr	Val	Asp	Asn	Pro	Val
		180						185					190		
Leu	Glu	Arg	Phe	Ile	Ser	Leu	Phe	Asn	Ser	Val	Ser	Gln	Trp	Val	Gln
		195					200					205			
Leu	Met	Ile	Leu	Ser	Lys	Pro	Thr	Ala	Thr	Gln	Arg	Ala	Leu	Val	Ile
	210					215					220				
Thr	His	Phe	Val	His	Val	Ala	Glu	Lys	Leu	Leu	Gln	Leu	Gln	Asn	Phe
225					230						235				240
Asn	Thr	Leu	Met	Ala	Val	Val	Gly	Gly	Leu	Ser	His	Ser	Ser	Ile	Ser
				245					250					255	
Arg	Leu	Lys	Glu	Thr	His	Ser	His	Val	Ser	Pro	Asp	Thr	Ile	Lys	Leu
		260						265					270		
Trp	Glu	Gly	Leu	Thr	Glu	Leu	Val	Thr	Ala	Thr	Gly	Asn	Tyr	Ser	Asn
	275						280					285			
Tyr	Arg	Arg	Arg	Leu	Ala	Ala	Cys	Val	Gly	Phe	Arg	Phe	Pro	Ile	Leu
	290					295					300				
Gly	Val	His	Leu	Lys	Asp	Leu	Val	Ala	Leu	Gln	Leu	Ala	Leu	Pro	Asp
305					310					315					320
Trp	Leu	Asp	Pro	Gly	Arg	Thr	Arg	Leu	Asn	Gly	Ala	Lys	Met	Arg	Gln
				325					330					335	
Leu	Phe	Ser	Ile	Leu	Glu	Glu	Leu	Ala	Met	Val	Thr	Ser	Leu	Arg	Pro
			340					345					350		
Pro	Val	Gln	Ala	Asn	Pro	Asp	Leu	Leu	Ser	Leu	Leu	Thr	Val	Ser	Leu
		355					360					365			
Asp	Gln	Tyr	Gln	Thr	Glu	Asp	Glu	Leu	Tyr	Gln	Leu	Ser	Leu	Gln	Arg
	370					375					380				
Glu	Pro	Arg	Ser	Lys	Ser	Ser	Pro	Thr	Ser	Pro	Thr	Ser	Cys	Thr	Pro
385					390					395					400
Pro	Pro	Arg	Pro	Pro	Val	Leu	Glu	Glu	Trp	Thr	Ser	Val	Ala	Lys	Pro
				405					410					415	
Lys	Leu	Asp	Gln	Ala	Leu	Val	Ala	Glu	His	Ile	Glu	Lys	Met	Val	Glu

420	425	430
Ser Val Phe Arg Asn Phe Asp	Val Asp Gly Asp Gly His Ile Ser Gln	
435	440	445
Glu Glu Phe Gln Ile Ile Arg	Gly Asn Phe Pro Tyr Leu Ser Ala Phe	
450	455	460
Gly Asp Leu Asp Gln Asn Gln Asp	Gly Cys Ile Ser Arg Glu Glu Met	
465	470	475
Ile Ser Tyr Phe Leu Arg Ser Ser	Ser Val Leu Gly Gly Arg Met Gly	
485	490	495
Phe Val His Asn Phe Gln Glu Ser	Asn Ser Leu Arg Pro Val Ala Cys	
500	505	510
Arg His Cys Lys Ala Leu Ile Leu	Gly Ile Tyr Lys Gln Gly Leu Lys	
515	520	525
Cys Arg Ala Cys Gly Val Asn Cys	His Lys Gln Cys Lys Asp Arg Leu	
530	535	540
Ser Val Glu Cys Arg Arg Arg Ala	Gln Ser Val Ser Leu Glu Gly Ser	
545	550	555
Ala Pro Ser Pro Ser Pro Thr His	Thr His His Arg Ala Phe Ser Phe	
565	570	575
Ser Leu Pro Arg Pro Gly Arg Arg	Ser Ser Arg Pro Pro Glu Ile Arg	
580	585	590
Glu Glu Glu Val Gln Thr Val Glu	Asp Gly Val Phe Asp Ile His Leu	
595	600	605

<210> 7
 <211> 591
 <212> PRT
 <213> Human

<400> 7

Gly Ser Ser Gly Leu Gly Lys Ala Ala Thr Leu Asp Glu Leu Leu Cys	
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Thr Cys Ile Glu Met Phe Asp Asp Asn Gly Glu Leu Asp Asn Ser Tyr	
20 25 30	
Leu Pro Arg Ile Val Leu Leu Met His Arg Trp Tyr Leu Ser Ser Thr	
35 40 45	
Glu Leu Ala Glu Lys Leu Leu Cys Met Tyr Arg Asn Ala Thr Gly Glu	
50 55 60	
Ser Cys Asn Glu Phe Arg Leu Lys Ile Cys Tyr Phe Met Arg Tyr Trp	
65 70 75 80	
Ile Leu Lys Phe Pro Ala Glu Phe Asn Leu Asp Leu Gly Leu Ile Arg	
85 90 95	
Met Thr Glu Glu Phe Arg Glu Val Ala Ser Gln Leu Gly Tyr Glu Lys	
100 105 110	
His Val Ser Leu Ile Asp Ile Ser Ser Ile Pro Ser Tyr Asp Trp Met	
115 120 125	
Arg Arg Val Thr Gln Arg Lys Lys Val Ser Lys Lys Gly Lys Ala Cys	
130 135 140	
Leu Leu Phe Asp His Leu Glu Pro Ile Glu Leu Ala Glu His Leu Thr	
145 150 155 160	
Phe Leu Glu His Lys Ser Phe Arg Arg Ile Ser Phe Thr Asp Tyr Gln	
165 170 175	
Ser Tyr Val Ile His Gly Cys Leu Glu Asn Asn Pro Thr Leu Glu Arg	
180 185 190	
Ser Ile Ala Leu Phe Asn Gly Ile Ser Lys Trp Val Gln Leu Met Val	
195 200 205	

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Leu Ser Lys Pro Thr Pro Gln Gln Arg Ala Glu Val Ile Thr Lys Phe
210                215                220
Ile Asn Val Ala Lys Lys Leu Leu Gln Leu Lys Asn Phe Asn Thr Leu
225                230                235                240
Met Ala Val Val Gly Gly Leu Ser His Ser Ser Ile Ser Arg Leu Lys
                245                250                255
Glu Thr His Ser His Leu Ser Ser Glu Val Thr Lys Asn Trp Asn Glu
                260                265                270
Met Thr Glu Leu Val Ser Ser Asn Gly Asn Tyr Cys Asn Tyr Arg Lys
                275                280                285
Ala Phe Ala Asp Cys Asp Gly Phe Lys Ile Pro Ile Leu Gly Val His
290                295                300
Leu Lys Asp Leu Ile Ala Val His Val Ile Phe Pro Asp Trp Thr Glu
305                310                315                320
Glu Asn Lys Val Asn Ile Val Lys Met His Gln Leu Ser Val Thr Leu
                325                330                335
Ser Glu Leu Val Ser Leu Gln Asn Ala Ser His His Leu Glu Pro Asn
                340                345                350
Met Asp Leu Ile Asn Leu Leu Thr Leu Ser Leu Asp Leu Tyr His Thr
                355                360                365
Glu Asp Asp Ile Tyr Lys Leu Ser Leu Val Leu Glu Pro Arg Asn Ser
370                375                380
Lys Ser Pro Thr Ser Pro Thr Thr Pro Asn Lys Pro Val Val Pro Leu
385                390                395                400
Glu Trp Ala Leu Gly Val Met Pro Lys Pro Asp Pro Thr Val Ile Asn
                405                410                415
Lys His Ile Arg Lys Leu Val Glu Ser Val Phe Arg Asn Tyr Asp His
                420                425                430
Asp His Asp Gly Tyr Ile Ser Gln Glu Asp Phe Glu Ser Ile Ala Ala
                435                440                445
Asn Phe Pro Phe Leu Asp Ser Phe Cys Val Leu Asp Lys Asp Gln Asp
                450                455                460
Gly Leu Ile Ser Lys Asp Glu Met Met Ala Tyr Phe Leu Arg Ala Lys
465                470                475                480
Ser Gln Leu His Cys Lys Met Gly Pro Gly Phe Ile His Asn Phe Gln
                485                490                495
Glu Met Thr Tyr Leu Lys Pro Thr Phe Cys Glu His Cys Ala Gly Phe
                500                505                510
Leu Trp Gly Ile Ile Lys Gln Gly Tyr Lys Cys Lys Asp Cys Gly Ala
515                520                525
Asn Cys His Lys Gln Cys Lys Asp Leu Leu Val Leu Ala Cys Arg Arg
530                535                540
Phe Ala Arg Ala Pro Ser Leu Ser Ser Gly His Gly Ser Leu Pro Gly
545                550                555                560
Ser Pro Ser Leu Pro Pro Ala Gln Asp Glu Val Phe Glu Phe Pro Gly
                565                570                575
Val Thr Ala Gly His Arg Asp Leu Asp Ser Arg Ala Ile Thr Leu
                580                585                590

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<210> 8

<211> 581

<212> PRT

<213> Rattus norvegicus

<400> 8

Gly Ser Arg Ala Gly Pro Lys Gly Arg Leu Glu Ala Lys Ser Thr Asn

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Ser Pro Leu	Pro Ala Gln	Pro Ser Leu	Ala Gln Ile Thr Gln Phe Arg
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Met Met Val	Ser Leu Gly His	Leu Ala Lys Gly Ala	Ser Leu Asp Asp
35	40	45	
Leu Ile Asp	Ser Cys Ile Gln	Ser Phe Asp Ala	Asp Gly Asn Leu Cys
50	55	60	
Arg Ser Asn	Gln Leu Leu Gln	Val Met Leu Thr	Met His Arg Ile Ile
65	70	75	80
Ile Ser Ser	Ala Glu Leu Leu Gln	Lys Leu Met Asn	Leu Tyr Lys Asp
85	90	95	
Ala Leu Glu	Lys Asn Ser Pro Gly	Ile Cys Leu Lys	Ile Cys Tyr Phe
100	105	110	
Val Arg Tyr	Trp Ile Thr Glu Phe	Trp Ile Met Phe	Lys Met Asp Ala
115	120	125	
Ser Leu Thr	Ser Thr Met Glu Glu	Phe Gln Asp Leu	Val Lys Ala Asn
130	135	140	
Gly Glu Glu	Ser His Cys His	Leu Ile Asp Thr	Thr Gln Ile Asn Ser
145	150	155	160
Arg Asp Trp	Ser Arg Lys Leu Thr	Gln Arg Ile Lys	Ser Asn Thr Ser
165	170	175	
Lys Lys Arg	Lys Val Ser Leu Leu	Phe Asp His Leu	Glu Pro Glu Glu
180	185	190	
Leu Ser Glu	His Leu Thr Tyr	Leu Glu Phe Lys	Ser Phe Arg Arg Ile
195	200	205	
Ser Phe Ser	Asp Tyr Gln Asn	Tyr Leu Val Asn	Ser Cys Val Lys Glu
210	215	220	
Asn Pro Thr	Met Glu Arg Ser	Ile Ala Leu Cys	Asn Gly Ile Ser Gln
225	230	235	240
Trp Val Gln	Leu Met Val Leu	Ser Arg Pro Thr	Pro Gln Leu Arg Ala
245	250	255	
Glu Val Phe	Ile Lys Phe Ile His	Val Ala Gln Lys	Leu His Gln Leu
260	265	270	
Gln Asn Phe	Asn Thr Leu Met	Ala Val Ile Gly	Gly Leu Cys His Ser
275	280	285	
Ser Ile Ser	Arg Leu Lys Glu	Thr Ser Ser His	Val Pro His Glu Ile
290	295	300	
Asn Lys Val	Leu Gly Glu Met	Thr Glu Leu Leu	Ser Ser Cys Arg Asn
305	310	315	320
Tyr Asp Asn	Tyr Arg Arg Ala	Tyr Gly Glu Cys	Thr His Phe Lys Ile
325	330	335	
Pro Ile Leu	Gly Val His Leu Lys	Asp Leu Ile Ser	Leu Tyr Glu Ala
340	345	350	
Met Pro Asp	Tyr Leu Glu Asp	Gly Lys Val Asn	Val Gln Lys Leu Leu
355	360	365	
Ala Leu Tyr	Asn His Ile Asn	Glu Leu Val Gln	Leu Gln Asp Val Ala
370	375	380	
Pro Pro Leu	Asp Ala Asn Lys	Asp Leu Val His	Leu Leu Thr Leu Ser
385	390	395	400
Leu Asp Leu	Tyr Tyr Thr Glu	Asp Glu Ile Tyr	Glu Leu Ser Tyr Ala
405	410	415	
Arg Glu Pro	Arg Asn His Arg	Ala Pro Pro Leu	Thr Pro Ser Lys Pro
420	425	430	
Pro Val Val	Val Asp Trp Ala	Ser Gly Val Ser	Pro Lys Pro Asp Pro
435	440	445	
Lys Thr Ile	Ser Lys His Val	Gln Arg Met Val	Asp Ser Val Phe Lys
450	455	460	

Asn	Tyr	Asp	Leu	Asp	Gln	Asp	Gly	Tyr	Ile	Ser	Gln	Glu	Glu	Phe	Glu
465					470					475					480
Lys	Ile	Ala	Ala	Ser	Phe	Pro	Phe	Ser	Phe	Cys	Val	Met	Asp	Lys	Asp
				485					490					495	
Arg	Glu	Gly	Leu	Ile	Ser	Arg	Asp	Glu	Ile	Thr	Ala	Tyr	Phe	Met	Arg
			500					505					510		
Ala	Ser	Ser	Ile	Tyr	Ser	Lys	Leu	Gly	Leu	Gly	Phe	Pro	His	Asn	Phe
		515					520					525			
Gln	Glu	Thr	Thr	Tyr	Leu	Lys	Pro	Thr	Phe	Cys	Asp	Asn	Cys	Ala	Gly
	530					535					540				
Phe	Leu	Trp	Gly	Val	Ile	Lys	Gln	Gly	Tyr	Arg	Cys	Lys	Asp	Cys	Gly
545					550					555					560
Met	Asn	Cys	His	Lys	Gln	Cys	Lys	Asp	Leu	Val	Val	Phe	Glu	Cys	Lys
				565					570					575	
Lys	Arg	Ser	Lys	Ser											
			580												